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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,722	12/03/2003	Kyu-seok Kim	SWO-0006	6367
23413	7590	06/02/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			CRANSON JR, JAMES W	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,722	Applicant(s) KIM ET AL.	
	Examiner James W. Cranson	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-17 and 28 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 18-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,435,685 to Matsushita.

Matsushita (fig4)discloses a backlight assembly comprising lamp, light guide plate, lamp reflector having an opening toward the light-entering surface combined to plate, and light interceptive part interposed between emitting and reflector preventing light from the lamp from entering through edge which light entering and emitting are intersected.

Regarding claim 1;

A backlight assembly (10) for an LCD apparatus comprising;

a lamp emitting light (7);

a light guide plate (2) with light-entering surface (2A) and light emitting surface (2C);

a lamp reflector (28) having an opening toward light entering surface (figure 4) and combined to light guide plate (fig 4)

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accommodating and covering the lamp (fig4) and
a light interceptive part (281,282, fig 4) between emitting surface
and lamp reflector (fig4) preventing light from entering through an
edge at which entering surface and emitting surface intersect (fig4).

Regarding claim 2, according to claim 1,

Matsushita discloses and illustrates in figure 4 that light interceptive
part (281,282) is depressed by edge (EU,EL, figure 4) at which light
entering surface and light emitting surface intersect.

Regarding claim 4, according to claim 2,

Matsushita discloses and illustrates in figure 4 that light interceptive
part (281,282) is extended toward lamp beyond light entering surface.

Regarding claim 10, according to claim 1,

Matsushita discloses and illustrates in figure 4 that a light reflector (4)
is disposed on rear side of light guide plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,6,7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over
by USPN 6,435,685 to Matsushita.

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Regarding claim 3, according to claim 1, wherein light interceptive part is made of elastic PET.

Matsushita discloses the claimed invention except for the material comprising the light interceptive part. It would have been obvious to one of ordinary skill in the art at the time of invention to have the light interceptive part of Matsushita made of elastic PET because it has been held that lacking any criticality, the selection of a known material based on its suitability for the intended use for prior art parts does not make the claimed invention patentable over that prior art (*In re Leshin*, 125 USPQ 416).

Regarding claim 6, according to claim 3,

Matsushita discloses and illustrates in figure 4 that light interceptive part (281,282) is extended toward lamp beyond light entering surface.

Regarding claim 7, according to claim 6,

Matsushita discloses and illustrates in figure 4 that light interceptive part has a C shaped cross section.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,435,685 to Matsushita in view of USPN 6,443,583 to Ha or USPN 6,074,070 to Sasako.

Matsushita does not disclose that light interceptive part is printed on a surface of the lamp reflector facing the light-emitting surface or that the part color is black or gray.

Ha teaches in a backlight for a LCD having printed regions on the reflector (column 2 lines 29-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the light interceptive part printed on the surface of the reflector of Matsushita as taught by Ha. The reason is ease of manufacture by eliminating the need

for a separate interceptive part.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over
by USPN 6,502,947 to Matsumoto et al.

Matsumoto discloses a backlight assembly for an LCD apparatus.

Regarding claim 15;

A backlight assembly (figure 1) for an LCD apparatus comprising;

a lamp emitting light (2);

a light guide plate (2) with light-entering surface (21) and

light emitting surface (23);

a lamp reflector (5) having an opening toward light entering

surface (figure 1) accommodating and covering the lamp (fig1) and

a reverse prism sheet (4) in front of emitting surface (23) (column 3

lines 50-54) formed with plural reverse teeth at intervals of predetermined

pitch (column 8, lines 51-68, column 9, lines 1-2,"light direction varying sheet 4

is not restricted to those having the elongated prisms on the light incident surface")

on a surface facing emitting surface and one side of prism is convex (as shown in

figure 1, at least one side of every reverse prism tooth is convex).

Matsumoto discloses the claimed invention except for the lamp reflector being combined
to the light guide plate. It would have been obvious to one of ordinary skill in the art at
the time of invention to have the lamp reflector combined to the light guide plate because
it has been held that lacking any critically, to make prior art parts integral does not make

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the claimed invention patentable over that prior art (*In re Larson*, 144 USPQ 347)..

Regarding claim 16, according to claim 15,

Matsushita discloses and illustrates in figure 1 that plural prism teeth (24, column 4 lines 55-67) are on a rear surface of the light guide plate.

Regarding claim 17, according to claim 16,

Matsushita discloses and illustrates in figure 1 that reverse prism teeth are arranged in a direction across the prism teeth of the light guide plate.

Regarding claim 28;

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,502,947 to Matsumoto in view of USPN 6,435,685 to Matsushita.

Matsumoto in a LCD apparatus does not have a light interceptive part interposed between the light emitting surface and the lamp reflector. Matsushita has a light interceptive part interposed between the light emitting surface and the lamp reflector. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Matsumoto with a light interceptive part interposed between the light emitting surface and the lamp reflector as taught by Matsushita. The reason, as taught by Matsushita (column 3, lines 49-54, "blocking of light incidence to the edges prevents generation of luminance irregularities")

Allowable Subject Matter

Claims 11 - 14 and 18-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 11, according to claim 10, adds the limitation that the light guide plate facing the reflector is formed of a plurality of prism teeth at intervals of a predetermined pitch. This combination of limitations is not found in the art of record.

Claims 12-14 depend from claim 11 and would be allowable for the same reasons.

Claim 18, according to claim 15, adds a light interceptive part interposed between light emitting surface and lamp reflector that prevents light from lamp from entering through an edge at which light entering surface and light emitting surfaces intersect. This combination of limitations is not found in the art of record.

Claims 19-27 depend from claim 18 and would be allowable for the same reasons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Cranson whose telephone number is 571-272-2368.


The examiner can normally be reached on Mon-Fri 8:30A.M.- 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).





THOMAS M. SEMBER
PRIMARY EXAMINER